

Skule Welcomes 8T4

the CANNON

September 4, 1980

University of Toronto Engineering Society

Vol. III No. 1

Class of 8T4 in Profile

Engineering is not an easy course; everyone knows that. While engineering students have long thought themselves to be among the intellectual elite, statistics prepared by the Faculty of Applied Science and Engineering reflect just how difficult it is to become a Skuleman, and remain one.

The Office of Admissions of the University of Toronto classifies applicants as either Grade XIII applicants, those from Ontario high schools, or non-Grade XIII students, effectively those from elsewhere ("mature" students, out-of-province or foreign students). The Admissions Office received 4,419 applications to engineering for the Class of 8T4, ten percent more than last year. Of these, 2,594 came from Grade XIII applicants, 1,825 from non-Grade XIII students. While not all of the offers of admission sent by the Faculty have been acknowledged, a first-year class of approximately 750 is expected to report for classes on September 3.

Mr. James Gow, secretary of the Faculty states that, historically, about sixty-five percent of those entering first year see graduation as an engineer. The others do not necessarily fail, but rather withdraw for a number of reasons, such as lack of funds, or personal problems. Perhaps engineering wasn't for them. These figures would indicate that about one-in-ten of those who apply for engineering at UoT receive an engineering degree from the school.

The Engineering Alumni News reported recently that, although first year classes have been quite large recently (more than 700), high admission standards have been maintained. The average mark among those admitted from Ontario Grade XIII to the Class of 8T3 was 83.1%, comprised of 89.7% for Engineering Science, and 81.3% for the other disciplines. Ninety percent of the first-year students had Grade XIII marks of 75% or higher (honours standing in most high schools) while less than one



Members of the class of 8T3 looked skeptical as they listened to Dean Slemon's address on Orientation Day, 1979.

percent had averages below 70%. These people would be admitted as special cases. The Alumni News also makes the valid point that the Grade XIII program required for admission includes five demanding courses: Relations and Functions, Calculus, Algebra, Physics, and Chemistry. Consideration is being given to the recommendation that a sixth subject requiring literary performance be included as

mandatory for entrants. This would aid students because engineering demands good communication skills.

Despite the quality of the entrants, Ms. Sally Cumming, Manager of the Faculty's Student Services office, says that forty students are expected to withdraw from the first year class by November, again for a variety of reasons. Perhaps another twenty or thirty may be required to withdraw after the

examinations at Christmas.

Generally, about five percent of the enrolment is made up of visa students from foreign countries. The class of 8T4 includes thirty-five students from places as diverse as Denmark, Malta, Cyprus, West Germany, Iran, and Pakistan. Apparently a concerted effort was made this year to increase applications from foreign students. Those that are accepted invariably have excellent academic records, and their presence adds substantially to Skule's academic and cultural environment. Included in this year's enrolment are seven people in Canada with *bona fide* refugee status! According to Ms. Cumming, it is the reputation of the Faculty of Applied Science and Engineering that draws these applications, and not the reputation of our country.

One final vital statistic is worthy of note. We've seen what it is like to be a Skuleman, but what is it like to be a Skulewoman? Last year, the Faculty's undergraduate population was composed of 236 women and 2,403 men.

That is what the class of 8T4 looks like on paper, and what they can expect as they prepare for their years in engineering at UoT.

This Month

Shinerama

One in 1800 children born in Canada has cystic fibrosis. Skulemen do their bit to help on September 13.....page 2

Homecoming

Eng. Soc. has solved the scheduling problems, at least for the time being, and after last year's absence, Homecoming returns to UoT...page 3

Events

This year's orientation promises to be the busiest in memory. See Engineering This Month for things to do in September.....page 4

Profs Rate First Years

Many first-year students do not know what to expect when they arrive at their first lecture. How well has their high school education prepared them for an engineering education? The Cannon sought the opinion of four professors with experience in teaching first-year classes. What impressions have they of first-year students? Although the size of the survey was very small, the viewpoints expressed were generally quite consistent.

Prof. S. Sandler of the Department of Chemical Engineering has taught first year chemistry (CHE 113F) for twenty-two years, and enjoys it thoroughly. He is currently the coordinator of the first year chemistry program. He regards first year studies as extremely important because of the foundation they lay for what is to come. If a student truly learns ninety-five percent of what he is taught, Prof. Sandler asserts, he will have most of

the attributes of a good engineer by the end of first year.

Because of the importance of the basics, and because of the diversity of backgrounds among the students, Prof. Sandler tries to select the best professors to meet the challenge of teaching first year. "I deplore the idea that an inexperienced professor must 'cut his teeth' on first year students", he says.

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the CANNON

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THE CANNON is a publication of the University of Toronto Engineering Society. It is published monthly to announce Eng. Soc. events, discuss Faculty and University matters, and present technical information of interest to Engineering undergraduates. Subscriptions are available, call Ella at 978-2917. Anyone interested in helping with THE CANNON is most welcome.

All submissions are welcome; please type or write legibly. Deadline for submissions is five o'clock the Friday before publication. Comments on THE CANNON, or articles appearing in it, are appreciated. The editors reserve the right to edit letters for brevity.

Good Luck

They've paid their fees, they've got their timetables, perhaps they've even taken the first steps to decorate their barren hard hats. The class of 8T4 is saying "We are engineers!" They've got a lot to learn.

Skule has quite a reputation at this university. Unfortunately, not all of it is good. However, engineers can take pride in the fact that we are recognised for our interest and involvement in the events that add dimension to the University. Both Shinerama and Homecoming are

examples of events that would not happen without the efforts of our Eng Soc.

We are not the saviours of this university, as we sometimes like to joke, nor will we be society's saviours as professional engineers, but we do play an important role.

The class of 8T4 will take its place in this university soon enough. Hopefully, they'll realise their responsibilities and obligations, to themselves and others, and they'll learn to approach the things they do with maturity. I do not preach solemnity, a good caper is almost always in order, but rather awareness of the motivations and ramifications of an act.

Almost machine-like, the university inducts young adults and spews them out as graduates four years later. There are no where near enough lecture hours available to teach the student all he'll need to know. There will however, be ample time provided, not just in lectures and labs, to prepare for graduation and the world "out there". If the class of 8T4 uses its time wisely it will be able to say, "We're learning to be engineers!" We wish them luck.

Honours

Ham Named to Order of Canada

University President James Ham, formerly a professor of Electrical Engineering and Dean of Engineering, has been appointed an officer of the Order of Canada. His investiture will occur at a Government House ceremony this fall.

Professr Etkin Awarded Eadie Medal

Professor Bernard Etkin of the Institute of Aerospace Studies and former Dean of Engineering has won the Thomas W. Eadie Medal awarded by the Royal Society of Canada. The award recognizes excellence of contributions to Canadian engineering and applied science, and reference was made in the citation to Professor Etkin's work in teaching and administration as well as to his research, publications, and consulting.

Professr Rimrott Receives von Humboldt Medal

Professor of Mechanical Engineering Fred Rimrott has been awarded the Alexander von Humboldt Medal for contributions to international scientific cooperation. The presentation was made at the 1980 Canadian regional meeting of the Alexander von Humboldt Foundation, June 29, 1980, in Ottawa.

—The Bulletin

Put a Shine On

Cystic Fibrosis (CF) is recognized as the most common incurable genetic disease of children. In Canada, one child in 1800 has CF. It affects the fluid producing glands of the body, such as the lungs, digestive system, and sweat glands, resulting in the accumulation of large amounts of mucus. This inhibits breathing, digestion, and provides an environment conducive to the development of infection which damages the lungs and heart. When CF was first identified in 1938 it was usually diagnosed at autopsy - young children died quickly of malnutrition, dehydration, or pneumonia. Today, as the result of intense research and the development of pancreatic enzymes to aid digestion, antibiotics to fight infection, and vitamin supplements, some CF patients are living into their twenties and thirties. These developments, needless to say, cost money.

Canadian students do their bit to help the Canadian Cystic Fibrosis Foundation (CCFF) by shining shoes for donations in the annual Shinerama campaign. Shinerama started in Canada in 1964, and last year raised \$254,000 for CF research. Nation-wide, more than forty centres participate. The money raised in Canada, for the most part, remains here. "Expenses are paid out of the proceeds, some funds are paid to an international CF group to finance the dissemination of information, and the rest is allocated by the CCFF's Medical Advisory Committee to various research projects in Canada," explained Steve Swigger, Toronto Shinerama Coordinator and a former UofT Engineer.

UofT's Engineers and Nurses have been involved in Shinerama every year since 1974. In fact, there even exists a Shinerama verse to The Engineer's Hymn! Unusual for any event involving Skulemen, Shinerama hasn't always been the success it should be in Toronto. Last year, the Toronto campaign raised \$11,750, of which about \$5,000 came from UofT (a chiropractic college and a sorority also conduct campaigns). By way of comparison, the University of Western Ontario raised \$31,487



A shiner collects a donation from shoppers at the Eaton Centre during last year's Shinerama.

In London, Ontario, a city with a population only a fraction of Toronto's.

The biggest problem has always been participation, explains Sherri Pajori (Nursing 8T2) who, along with Lynn Wizniak (Geo 8T1), is coordinating this year's Shinerama effort. "It's hard to generate enthusiasm in a school the size of UofT." Unfortunately, many people from other faculties and colleges regard Engineers and Nurses as being a clique, and feel that they would not be welcome. Nothing is further from the truth. "We've sent invitations to many student organizations and have received commitments from Vic, St. Mike's, U.C., and three fraternities," says Pajori. "We hope to have at least three hundred shiners this year, as opposed to one hundred last year."

This year's Shinerama is on Saturday, September 13, and shiners will have much more fun

than just standing on a Toronto street corner shining the shoes of some Bay Street businessman or Yonge Street shopper. The day kicks off at 8:00 a.m. with a breakfast at Devonshire House. Shiners register at 9:00 a.m. on the front campus in front of University College. The event has the support of SAC, and the Labatt's activities bus will be on hand. Transportation for the shiners will be provided by volunteers from the Toronto and West End Van Clubs. If you prefer, you could join the LGMB, and shine shoes as you roam the city to musical (?) accompaniment. The day winds up at 8:00 p.m. with a Shinerama Pub at University College Refectory, with free admission to shiners.

Thousands of CF kids are counting on the support of Skule in this year's Shinerama campaign. Don't let them down. Spend a day shining shoes, have a great time, and help give a kid the breath of life.

Employment Forecast Good

Many people enroll in Engineering simply because they feel an Engineering degree guarantees them a job upon graduation. Just how good are the prospects for employment for the Class of 8T1? The Cannon asked Jan Kloosterhuis, Employment Coordinator for the Career Counselling and Placement Centre. Here's what she had to say.

Engineering students should feel "cautiously optimistic" anticipating the shape of the job market for 1984. Manpower analysts predict a growing shortage of engineers in the 80's and certainly in the short term the experiences of the graduating classes of 1980 and 1981 bear this out. But crystal ball gazing into

the future is an inexact science, to say the least. The fickle job market is subject to many changing pressures over which you, individually, will have no control.

However, regardless of the supply and demand balance in the future there are steps you can take now to optimize your chances for successful entry into the job market in 1984.

1. Apply yourself to your studies. While high marks are not the sole qualification sought by employers, a good academic record is important.

2. In addition to acquiring sound engineering skills, use every opportunity to develop those "management" skills -

communication (written and verbal), leadership, organizational, etc...All of these and more are sought by employers.

3. Start now to investigate the various types of engineering careers available. It will be important in your graduating year to be able to define your short and long term career goals and to plan a job search campaign based on these goals.

4. Attempt to acquire summer jobs which allow you to put into practice those engineering skills developed in the classroom. Such "course-related" summer jobs are not easy to come by. Begin your summer job search early (i.e. the FALL of each

year).

5. Develop good job search skills so that you approach the job market as a professional. Learn how to develop successful job search strategies; know how to write a good resume and develop your interview skills.

Control of your future is in your hands. Preparing wisely and early will reap rewards. Remember the Career Counselling and Placement Centre is available at every step of the way to assist you. Visit the Centre at 344 Bloor Street West, 4th floor, just west of Spadina.

Jan Kloosterhuis



Alumni Return Home

Traditionally, UofT Alumni return to the University every fall, to participate in reunions, luncheons, tours, and the other festivities of Homecoming. The focal points of the celebrations are the Homecoming Parade, and a Varsity football game. Plans are nearing completion for the 1980 Homecoming, to be held the weekend of September 19 and 20, when the Varsity Blues meet McMaster Marauders.

No Homecoming Parade was held in 1979 and the 1980 celebration was in doubt for sometime. For many years Varsity football games were played Saturday afternoons. Throughout the 1970's, attendance at Varsity games

dropped drastically and last year the Department of Athletics and Recreation shifted the football games to Friday nights and began a campaign to convince the UofT community that "Friday night is Football Night" in an effort to stimulate attendance.

Unfortunately, a permit cannot be obtained to hold a parade until after rush hour, and a parade could not be held in conjunction with an evening football game. After his election last March, Eng. Soc. V.P. Activities Dave Neale began efforts to convince the Department of Athletics to move one game to Saturday afternoon to allow for a Homecoming. He succeeded, but some large risks are involved. "The Department

of Athletics is working hard to improve attendance, and they're taking a chance for us. If we don't get an excellent turnout - around 8,000 - I don't think there'll be a Homecoming next year," Neale indicated.

Approximately fifteen campus student societies have confirmed that they will be entering a float in the parade. Neale is counting on them to encourage their students to attend the game as well.

A central location at Drill Hall has been provided for float construction on Friday evening, September 19. Most floats will use a flatbed trailer as a platform. The floats will marshal

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Professors' Viewpoints

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The most difficult aspect of teaching a first year class is accommodating their various backgrounds while trying to ensure that they all receive a firm grounding in the basics. "Many students are given sophisticated views of chemistry far too early - before they have full command of the basic principles", says the professor. Basics are boring, but the professor must present them, and make sure they are understood.

Prof. I.R. Dalton of Electrical Engineering has taught Electricity (ELE 121S) to many first year classes, and recently some first year Algebra. He agrees with Prof. Sandler that not sufficient emphasis is placed on the problem solving basics in high school. "There seems to be a lack of drill in high school training. I realize drill is sometimes boring, but it is necessary." Prof. Dalton feels that, although the students want to learn, they do not always want to put the required effort into their studies.

Prof. Dalton's complaint about first year students, and students in general, is that they don't seem to realize the responsibility intrinsic to their chosen profession, or at least their dress and deportment do not indicate that they do. There is a lack of professional attitude in the way students approach their work, their professors, and themselves, he feels. He tries to stress the professionalism of engineering to his students and thinks this should be promoted among all students.

Prof. J. Keffer, of the Department of Mechanical Engineering, has had some difficulties with attitude among first year students as well. He has taught Calculus in the spring term of the last two years. He has found that there is a certain lack of responsibility and maturity among the students and that it is often difficult to maintain order when dealing with uninteresting subject matter. "I find myself spending more time controlling the class than lecturing. Students have got to learn to get what they pay for. They, and society, are paying a lot for a quality education but they sometimes don't get it because their own actions interfere."

There is a large demand to relate the subject matter to engineering and thereby make it more interesting. Many of the professors teaching first year math courses are from the Faculty of Arts and Science and have difficulty in this regard. Prof. Keffer, because of his engineering background, was "reasonably successful", and he enjoys teaching the classes. "The students are enthusiastic and not yet jaded in their outlook," he states.

Although the classes were reasonably well prepared, a major revision of the course is necessary to better accommodate the diverse educational backgrounds of the students, and to better coordinate the course with that of second year, the professor indicated.

Prof. C. Chaffey, also of Chemical Engineering, has taught CHE 112F since 1975 and computer science (APS 100) on and off since 1967. He feels the admissions process is selective enough that the students in his class are generally capable. He enjoys teaching first-year students because of their enthusiasm, and is most disappointed when a capable student does poorly because of lack of motivation.

The professor emphasized that the students should remember that the faculty and staff are human and that, because of budget or time restrictions, they cannot always provide the level of availability they would like. He reminds first-year students that professors and tutorial assistants have telephones and offices and appointments can be made to obtain help.

It is interesting to note that, although the professors cover different subject areas, they make consistent observations regarding students' enthusiasm, but sometimes poor attitude and occasional lack of motivation. The students could benefit from a stronger understanding of the basics of their subjects, gaining sophistication in due time. All the professors indicated an enjoyment of teaching first-year students, an important and encouraging sign.

HELP!

In this, The Cannon's third year, it is faced with a difficult problem. While most people recognize the need for a paper such as the Cannon, few people are willing, it seems, to contribute. If some assistance is not forthcoming, the Cannon will not be able to continue publishing.

We seek both contributions of articles and information, and production help. Many students have specific areas of technical interest and if they'd take some time to write a short explanation of the topic and its technical relevancy we'd be very happy to print it. Fourth-year students, graduates, or professors might synopsise their research program for the benefit of Cannon readers. Think of seeing your name in print! If you are aware of an event of interest to Engineers - an Eng. Soc. event, a conference, a seminar - drop a note in the Tiny Toke mailbox in the Engineering Stores. Members of Eng. Soc. committees should keep in constant touch with the Cannon regarding the activities of their committee. In short, keep the Cannon informed, and we'll make sure everyone knows.

Production of the Cannon is not difficult, but it is time-consuming if only one or two people are involved. If you can type, write, or can be trusted with a sharp knife, you can contribute to publishing the Cannon. We need you, and there is a lot for you to gain, too.



**Keeps
on tasting
great.**

Homecoming

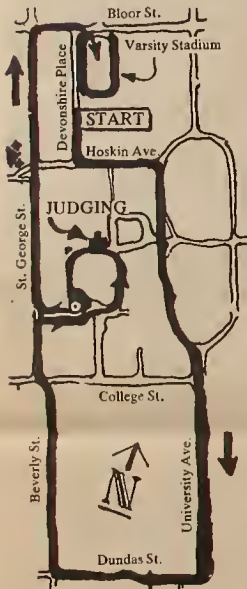
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on Devonshire Place and the parade begins there at noon, starting east on Hoskin Avenue. Judging by University dignitaries will be conducted at University College as the floats round King's College Circle. The parade enters the northwest corner of Varsity Stadium at approximately 1:20 p.m. and will parade in the Stadium for a further thirty minutes. Six finalists will be announced, and

the other floats will leave the Stadium prior to the start of the Blues-McMaster game. Final judging occurs at half-time after which the finalists leave the Stadium to be dismantled. The winner will be announced at the football game, and presentations made at a Homecoming Pub in the Medical Sciences Building Lobby Saturday night.

Enjoy a colourful parade, and an exciting football game at the 1980 Homecoming.

Homecoming Parade Route



Commencing at noon, floats will travel south on Devonshire Place, east on Hoskin Avenue, south on Queen's Park Crescent, south on University Avenue, west on Dundas Street, north on Beverly Street, north on St. George Street, east on Galbraith Road, around King's College Circle (for judging at University College), west on Galbraith Road, north on St. George Street, east on Bloor Street, into the north-west corner of Varsity Stadium by 1:20 p.m.

Participants

Colleges and faculties that will be participating include: Innis, Engineering, Meds, Rehab, Men's Frats, Women's Sororities, Pharmacy, Woodsworth, Vic, FEUT, Nursing, Music, PHE, Erindale, UC, Knox, New, and others.



call for 'Labatt's Blue'

Engineering This Month

If you are organizing an event, or know of one, that would be of specific interest to Eng. Soc. members, please drop a short note about it in the Tiny Toike box in the Society offices or contact Ella at 978-2917. It will be listed here free of charge. Suitable events might include Eng. Soc. committee meetings, talks, seminars or presentations given on or off campus by University groups or outside organizations.

Tuesday, Sept. 2 Orientation Day

First year students will receive their indoctrination and orientation in various activities over the course of the day. Convocation Hall opens at 8:30 a.m. for the purchase of survival kits and the day ends at 4:00 p.m. at D.J.'s Tavern in the Hydro Place. Do not drive on Queen's Park Crescent between 2:30 p.m. and 4:00 p.m.

Wednesday, Sept. 3 Scavenger Hunt

The Plosh compete against the LGMB in this yearly Garage Sale in reverse. Participants

gather at 7:00 p.m. in the Engineering Cafeteria.

Executive Meeting

Eng. Soc. Executive meets at 5:00 p.m. in Hart House.

Thursday, Sept. 4 Nursing Caper

Anything can happen, and often does, when the Plosh are introduced to the Nurses. Meet at noon in the Cafeteria.

Friday, Sept. 5 Parade and Toilet Bowl Game

Participate in this gala event on St. George Street. Assemble in front of the Galbraith Building at noon.

SAC Roamaround

Touted as a game of skill, the Roamaround is preceded this year by a revival of an old football rivalry - Varsity Blues vs. McGill. The game starts at 7:00 p.m. at Varsity Stadium. Engineers are to start the Roamaround at Wetmore Hall, New College. Purchase tickets early; they are limited.

Saturday, Sept. 6 Barbecue

A picnic and barbecue starts at

2:00 p.m. in the Cafeteria. A surprise is in store for the evening!

Sunday, Sept. 7 Hart House Farm

Recuperate from a busy orientation week in the Great Outdoors at the farm. Learn the Bnad songs, and throw your least favourite person in the pond. Gather at 9:00 a.m. on the Front Campus in front of Convocation Hall.

Monday, Sept. 8 to Friday, Sept. 12

Eng. Soc. Class Elections

First and second year students will be electing their class representatives for the Eng. Soc. and the Faculty Council in lecture periods this week. If you've got something to offer, why not run? It's a great experience.

Thursday, Sept. 11 Blue Jays Baseball Game

Plosh gain free admission, and upperclassmen get in for a dollar as the Jays take on the Baltimore Orioles. Meet promptly at 6:30 p.m. at the

Hockey Hall of Fame on the C.N.E. grounds.

Friday, Sept. 12 Toike Make-up

Come to the Toike Office, opposite the Engineering Stores, at 5:00 p.m. and give the Toike Oike some of the great ideas you've been saving all summer. It needs all the help it can get.

Saturday, Sept. 13 Shinerama

Shine shoes and help give a kid the breath of life. All proceeds to cystic fibrosis research. Breakfast at 8:00 a.m. at Devonshire House, register at 9:00 a.m. in front of U.C. and come to the Pub at 9:00 p.m. in the U.C. Refectory. Pree to shiners.

Tuesday, Sept. 16

Eng. Soc. Council Meeting

A meeting of the full Council (all Eng. Soc. reps. and Faculty Council reps.) will convene at 5:00 p.m. in GB202. Please be prompt.

Thursday, Sept. 18

Women In Engineering

Women, there may be more of you than you think. Meet other women at the annual Wine and Cheese party at 5:00 p.m. in the International Students Centre.

Friday, Sept. 19

Homecoming Float Building

Help construct the Skule Homecoming float from 5:00 to 10:00 p.m. in Drill Hall.

Saturday, Sept. 20 Homecoming

Watch the parade, and cheer the Skule float, starting at noon at Devonshire and Hoskin. Support the Varsity Blues against McMaster in the Homecoming Game at 2:00 p.m. in Varsity Stadium and celebrate the victory at the Homecoming Pub in the Medical Sciences Building Lobby at 8:00 p.m.

Friday, Sept. 26 Oktoberfest

Call it Septemberfest if you will. An annual classic. This year in the Great Hall, Quad, and Lower Gym of Hart House. Dance to oom-pah-pah music and toast the season.